

SPECIFICATION

Amend the paragraph beginning at page 6, line 24, as follows:

FIG. 3 shows a packet network portion 300 having a set V of nodes 301 through ~~312~~ 313 interconnected by a set E of links $l(i,j)$, $301 \leq i,j \leq 312$ and $i \neq j$. Network 300 may optionally include route server 350 that receives an NTP request, and provisions active and backup paths in accordance with an exemplary embodiment of the present invention. Alternatively, dynamic backup routing may be implemented in a distributed fashion by a processor of one or more of nodes 301 through 312. Nodes 301 through 312 employ dynamic backup routing in accordance with one or more exemplary embodiments of the present invention. Node 301 is the source node s and node 312 is the destination node t for an NTP request having demand d .

Amend the Table beginning at page 8, line 16, as follows:

Primary Path	Backup Path
Node <u>401 to 402 to 403</u>	401 to 405 to 406 to 403
Node <u>402 to 403 to 404</u>	402 to 406 to 407 to 408 to 404
Node <u>403 to 404 to 412</u>	403 to 407 to 408 to 409 to 412
Link $l(404, 412)$	404 to 409 to 410 to 411 to 412

Amend the Abstract beginning at page 39, line 4, as follows:

A packet network of interconnected nodes ~~employs~~ employing dynamic backup routing of a Network Tunnel Path (NTP) allocates an active and backup path to the NTP based upon detection of a network failure. Dynamic backup routing employs local restoration to determine the allocation of, and, in operation, to switch between, a primary/active (~~also termed active~~) path and a secondary/backup (~~also termed backup~~) path. Switching from the active path is based on a backup path determined with iterative shortest-path computations with link weights assigned based on the cost of using a link to backup a given link. Costs may be assigned based on single-link failure or single element (node or link) failure. Link weights are derived by assigning usage costs to links for inclusion in a backup path, and minimizing the costs with respect to a

predefined criterion. For single link failure, each link in the active path has a corresponding disjoint link in the backup path. For single element failure, in addition to backup of the final link in the active path, all links incident have disjoint bypass links assigned to account for node failure. While intra demand sharing is used, inter demand sharing may also be provided if complete network information is available to the dynamic backup routing algorithm.